

WELL HISTORY

COMPASS EXPLORATION, INC. #1-32 NAVAJO

C SW NW Section 32, T 32 N, R 18 W

San Juan County, New Mexico

Navajo Tribal Lands

Contract No. 14-20-603-587

Elevation 5241' Ground, 5252' K.B.

Drilling Contractor: Rutledge Drilling Company
Santa Fe, New Mexico

1959

March

30 Graded location, 1980' from north line and 660' from west line, 32-32N-18W.

31 Rigged up rotary tools.

April

1 Finished rigging up.
2 Drilled rat hole and spudded.
3 Drilled 12-1/4" to 270', reamed hole prior to running surface casing. Deviation at 270' - 1°.
4 Ran 9 jts. 13-3/8" casing, 48# H40, Baker guideshoe and float collar, one centralizer, 270', set at 285'. Cemented with 300 sx regular, 2% CaCl. Plug down at 4:30 a.m. Waited on cement.
5 Waited on cement. Drilled to 391'.
6 Drilled to 768'. Commenced Core #1 at 745'. Survey at 745' - 1°.
7 Completed Core #1 - 745' to 770'. Drilled to 1632'. Surveys: 1200' - 1/2°; 1510' - 3/4°.
8 Drilled to 2075'. Surveys: 1692' - 1°; 1896' - 1-1/4°.
9 Drilled to 2527'. Surveys: 2100' - 1°; 2292' - 1/4°.
10 Drilled to 3016'. Survey at 2416' - 1/4°.
11 Drilled to 3380'.
12 Drilled to 3610'.
13 Drilled to 3940'. Survey at 3635' - 3/4°.
14 Drilled to 4176'. Survey at 3940' - 3/4°.
15 Drilled to 4275'. Survey at 4180' - 1-1/2°.
16 Drilled to 4595'.
17 Drilled to 4825'. Survey at 4620' - 1-1/2°.
18 Drilled to 5111'. Surveys: 4790' - 1-1/2°; 4980' - 3/4°.
19 Drilled to 5321'.
20 Drilled to 5548'. Survey at 5365' - 1/4°.
21 Drilled to 5786'. Survey at 5509' - 1/4°.
22 Drilled to 5972'. Survey at 5815' - 1/4°.
23 Drilled to 6138'. Survey at 5972' - 1/4°.
24 Drilled to 6262'. Survey at 6200' - 1/4°.

1959
April

25 Drilled to 6425'.
26 Drilled to 6548'. Survey at 6507' - 1°.
27 Drilled to 6715'.
28 Drilled to 6845'. Survey at 6715' - 2-3/4°.
29 Drilled to 6976'. Survey at 6940' - 1-3/4°.
30 Drilled to 7066'. Began coring at 7050'.

May

1 Completed Core #2 - 7050' - 7100'. Drilled to 7140'.
2 Drilled to 7295'. Survey at 7224' - 2°.
3 Drilled to 7389'.
4 Drilled to 7471'. Survey at 7413' - 2-1/2°.
5 Drilled to 7558'. Prepared to run DST #1.
6 Drilled to 7612'. Ran Halliburton Drill Stem Test #1,
as follows:

DST #1 - 7485' to 7558' - GTS - 13", too small to measure.
Shut in 1/2 hour, open 1-1/2 hours, final shut-in 1 hr.

IHP 3850#
ISIP 3560#/30"
IFP 45#
FFP 60#
FSI 3560#
FHP 3850#

Recovered 120' sour gas cut mud.

7 Drilled to 7646'. Survey at 7626' - 1-1/2°. Ran Halliburton
Drill Stem Test #2 as follows:

DST #2 - 7560' - 7646' - Gas to surface in 5", sour gas,
estimated gauge 500 mcf; gas cut salt water flowed by
heads in 1'20".

Open 2 hrs., shut in 30 min.

Recovered 6476' salt water with strong sulphur odor.

IHP 3850#
ISIP 3650#/30"
IFP 430#
FFP 2505#/2'
FSIP 3540#/1'
IHP 3850#

Bottom hole temperature 200°.

8 Drilled to 7731'.
9 Drilled to 7862'. Survey at 7800' - 2-1/4°
10 Drilled to 7947'.

1959

May

11

Drilled to 8000'. Ran Schlumberger Induction-ES,
Microlog, Gamma Ray-Neutron.
Attempted to run DST #3 at 7100', packer would not hold.
Prepared to plug and abandon.

12

Plugged and abandoned. Plugs set as follows:

7500-7630 w/40 sx slo-set

5950-6050 w/30 sx slo-set

4600-4700 w/30 sx reg.

3150-3250 w/30 sx reg.

2550-2650 w/30 sx reg.

1300-1400 w/30 sx reg.

300- 260 w/20 sx reg.

Top of surface w/10 sx.

Erected marker, 3" drill pipe 4' long above ground, with
marker.

Began rigging down and moving out.



Peter J. Farrelly
Geologist

Compass Exploration, Inc.

COMPASS EXPLORATION, INC. #1-32 NAVAJO

**C SW NW Section 32 T 32 N, R 18 W
San Juan County, New Mexico
Navajo Tribal Lands
Contract No. 14-20-603-587**

Elevation 5241' Ground, 5252' K.B.

FORMATION TOPS

Greenhorn -----	1345'
Dakota -----	1425'
Morrison -----	1605'
Summerville -----	2565'
Entrada -----	2645'
Wingate -----	2925'
Chinle -----	3345'
Permian Cutler -----	4315'
Hermosa -----	5995'
Paradox -----	6950'
Pennsylvanian Molas -----	7980'

T.D. 8000' in Pennsylvanian Molas

SAMPLE DESCRIPTIONS

Compass Exploration, Inc. #1-32 Navajo
32-32N-18W San Juan County, New Mexico

Surface Pipe @ 285'. Samples start under surface.

290	300	Shale, grey - dark grey, silty, micaceous, slightly calcareous, 100%.
300	330	Shale as described above.
330	370	Shale as described above, with trace siltstone, light grey, micaceous (biotite)
370	400	Shale, dark grey - light grey, slightly silty, micaceous (biotite-muscovite); trace siltstone, light grey, micaceous, slightly calcareous.
400	460	Shale as described above.
460	630	Shale as described above, with trace siltstone, grey, tight.
630	640	Sample as above, with some shale becoming brown, silty.
640	720	Samples as described above.
720	730	As above, with trace siltstone, brown, calcareous.
730	740	Sample as above, with trace siltstone grading to sandstone, fine-grained, tight.

CORE #1 - 745 to 770, Cut 25' recovered 25':

745	754	Shale, black, calcareous, slightly micaceous in places, with interbedded siltstone, grey.
754	770	Shale, black, calcareous.
770	780	Shale, black, calcareous, as described above.
780	790	Shale as above, 90%; sandstone, grey, fine-grained, angular, poorly sorted, calcareous, pyritic, 10%.
790	800	As above.
800	810	Sandstone, grey, fine-grained, angular, quartzitic, poorly sorted, slightly pyritic, very calcareous, 10%; shale as described above, 90%.
810	860	Shale as described above, with trace sandstone as above.
860	870	Sandstone, white-grey, fine-grained, well cemented, poorly sorted, angular quartz-grained, very calcareous, 10%; shale as described above, 90%.
870	880	As above, with some sandstone, becoming friable.
880	890	Shale as above, 100%.
890	900	Sandstone as described above, 10%; shale as above, 90%.
900	910	Sandstone as described above, 20%; shale as above, 80%.
910	920	Sample as described above.
920	930	No sample.
930	940	Sandstone as described above, grading to siltstone, 30%; shale as described above, 70%.
940	950	Sandstone as described above, 40%; shale as above, 60%.
950	960	Sample as described above.

960	980	Sandstone as described above, 30%; shale as above, 70%.
980	1000	Shale as described above, 70%; sandstone as above, becoming brown, very calcareous, tight, 30%.
1000	1020	Shale, black, calcareous, 100%.
1020	1030	Limestone, light grey, dense, litho-grade, 10%; shale as above, 90%.
1030	1060	Shale as above, with trace limestone as above, 100%.
1060	1070	No sample.
1070	1100	Shale, black, calcareous, 100%.
1100	1200	Shale, black, calcareous, slightly silty, 100%.
1200	1260	Shale as above, with trace sandstone, light grey, fine-grained, tight.
1260	1290	Shale as described above, becoming very silty.
1290	1310	As above, with shale becoming very silty; trace grey-green bentonite.
1310	1320	Shale as above, becoming very silty.
1320	1330	Shale as above, with trace of mica.
1330	1340	Shale as above, with trace bentonite, grey-green.

TOP OF GREENHORN - 1345'

1340	1350	Shale as described above, becoming very silty, with many bentonite stringers; trace limestone, brown, dense, very argillaceous.
1350	1360	Limestone, grey-brown, very argillaceous, dense, 10%; shale as described above, 90%.
1360	1380	Sample as described above, with trace bentonite.
1380	1400	Shale, dark grey, silty, calcareous, with bentonite stringers; trace limestone, as described above.
1400	1410	Shale as described above, with numerous bentonite stringers.
1410	1420	Shale as above, very silty.

TOP OF DAKOTA - 1425'

1420	1430	Shale as described above, with numerous bentonite stringers; trace sandstone, grey, salt-and-pepper, medium to fine-grained, friable to fairly friable, dirty, poorly sorted, numerous loose sand grains.
1430	1440	Sandstone, grey, medium grain grading to subrounded, fairly friable, siliceous cement; trace pyrite inclusions, 30%; shale as described above, 70%.
1440	1450	Sandstone as described above, with trace sandstone, grey, medium to fine-grained, poorly sorted, 40%; shale as above, 60%; trace coal.
1450	1460	Sandstone as described above, 50%; shale as described above, 50%; trace coal.
1460	1470	Sandstone, white-grey, fine-grained grading to subangular, fairly friable, 45%; shale as above, 45%; coal, 10%.
1470	1480	Sandstone as above, with many pyrite inclusions, 40%; shale, black, calcareous, 50%; coal as above, 10%.

1480	1490	Sandstone as described above, 30%; shale as above, with some interbedded sandstone, 70%.
1490	1510	Sandstone, white-gray, fine-grained, well sorted, grading to subangular, with carboniferous inclusions, 50%; shale as described above, 50%.
1510	1520	No sample.
1520	1530	Sandstone, white-grey, fine-grained, grading to subangular, fairly friable, with numerous thin carboniferous particles, with some sandstone becoming grey, dirty, poorly sorted, fine-grained, 30%; shale, black-grey, carboniferous, 70%.
1530	1540	Sandstone, green, fine-grained, well cemented, grading to subangular, glauconitic, with some sandstone as described above, trace bentonite, 30%; shale as above, 70%.
1540	1550	Sandstone as described above, 15%; shale as above, 85%.
1550	1560	Sample as above, becoming very bentonitic.
1560	1570	Sandstone, white, fine-grained, subangular, well sorted, well cemented, 40%; shale as above, 60%.
1570	1590	Sandstone, white-tan, fine to medium-grained, fairly friable, well sorted, with white interstitial clay, 50%; shale as above, 50%.
1590	1600	Sandstone conglomerates, large unconsolidated quartz grains, clear, translucent, pink, with sandstone as described above, 70%; shale as above, 30%.

TOP OF MORRISON - 1605'

1600	1610	Sandstone, green, medium-grained, glauconitic, fairly friable, with some sandstone as described above, 60%; shale, green, waxy, 10%; shale, black, as described above, 30%.
1610	1620	Conglomerate grains of quartz, angular, clear, translucent, with some pebbles, 50%; sandstone as above, 20%; shale, black, carboniferous, 30%.
1620	1630	Shale, green, waxy, with some bentonite, 100%.
1630	1650	Shale, green, as described above, 90%; sandstone, white, medium-grained, well sorted, friable, 10%.
1650	1670	Shale, green, as described above, with trace sandstone, green, tight, fine-grained, poorly sorted.
1670	1700	Shale as described above, with trace pyrite, trace white bentonite.
1700	1720	Sandstone, white-green, medium-grained, tight, angular, grains, finely sorted, trace pyrite inclusions, 70%; shale, green, as described above, 30%.
1720	1750	Sandstone, white grading to green, fine to medium grains, poorly sorted, 90%, with trace bentonite, 90%; shale as described above, 10%.
1750	1770	Very poor samples, high per cent cavings.
1770	1900	Shale as described above, 50%; sandstone as above, 50%. Samples almost 100% Mancos cavings.

1900	1940	Sandstone, grey, fine-grained, silty, micaceous, with some sandstone, green, fine-grained, silty, glauconitic, trace bentonite, 100%.
1940	1980	Sandstone as described above, high per cent cavings.
1980	2000	Sandstone as above.
2000	2030	Sandstone as above, with trace orange sandstone.
2030	2100	Sandstone as described above, with trace green shale, trace pink shale.
2100	2120	Sandstone, white-cream, angular quartz grains, medium-grained, tight, with trace green shale, trace green sandstone as described above.
2120	2180	Sandstone as described above.
2180	2200	Sandstone as described above, with trace brown shale.
2200	2210	Sandstone as described above, 90%; shale, red-green, 10%.
2210	2250	Sandstone as described above, 70%; shale, green-red, 30%; high percent Mancos cavings.
2250	2280	Shale, red, 70%; sandstone as above, 30%.
2280	2370	Sandstone, white-orange, fine grains, poorly sorted, tight, 90%; shale, red-green, 10%.
2370	2400	Very poor samples, primarily cavings.
2400	2420	Samples primarily cavings, with trace of shale and sandstone as described above.
2420	2440	Shale, red, slightly waxy, trace sandstone, white, medium grains, grading to angular, 100%; high per cent of cavings in samples.
2440	2470	Shale, red-green, 50%; sandstone as described above, 50%.
2470	2490	Shale, red-green, with trace mottled shale, high per cent cavings.
2490	2500	Sample primarily all cavings.
2500	2540	Shale, red-green, 80%; sandstone as described above, 20%.
2540	2560	Shale as above, 80%; sandstone as above, 20%; samples primarily cavings.

TOP OF SUMMERVILLE - 2565'

2560	2570	Shale, orange, red, silty, very slightly calcareous, 50%; shale, red, green, as above, 40%; sandstone as above, 10%.
2570	2590	Samples as described above, orange shale washing out of samples.
2590	2620	Shale, orange-red, as described above, 100%.
2620	2640	Shale as described above, becoming more silty.

TOP OF ENTRADA - 2645'

2640	2670	Sandstone, orange, fine grains grading to angular, friable, well sorted, 30%; shale, orange, as above, 70%; high per cent Morrison and Mancos cavings.
2670	2690	Sandstone, orange, fine to medium-grained, trace glauconite, fairly friable, grading to subrounded, calcareous, 90%; shale as above, 10%.

2690	2740	Samples as described above (primarily cavings).
2740	2850	Sandstone as described above, 100%.
2850	2870	Sandstone as above, some becoming brown-orange, fine-grained, well sorted.
2870	2900	Sandstone, red-brown, fine-grained, well sorted, slightly calcareous, 90%; shale, orange, as above, 10%.
2900	2920	Sandstone as described above, 100%.

TOP OF WINGATE - 2925'

2920	2940	Shale, brick red, slightly waxy, 10%; sandstone as described above, 90%.
2940	2960	Shale as described above, 30%; sandstone as above, 70%.
2960	3020	Sandstone, red, very fine-grained, well sorted, 90%; shale as described above, 10%.
3020	3090	Sandstone as described above, 100%.
3090	3110	Shale as described above, 50%; sandstone as above, 50%.
3110	3130	Shale, brick red, as described above, 70%; sandstone as described above, 30%.
3130	3150	Shale as described above, 50%; sandstone as above, 50%.
3150	3300	Samples as described above, high per cent cavings.
3300	3320	High per cent Mancos shale cavings; shale as above, 50%; sandstone as above, 50%.
3320	3340	Shale as described above, 70%; sandstone as above, 30%.

TOP OF CHINLE - 3345'

3340	3350	Shale as above, 70%; sandstone as above, 30%.
3350	3360	Limestone, pink, lavender, red, orange, mottled, dense, microcrystalline, 70%; shale as above, 30%.
3360	3390	Limestone as described above, 40%; siltstone, red, calcareous, 30%; shale, brown-red, as above, 30%.
3390	3400	Limestone as described above, 60%; shale and siltstone as above, 40%.
3400	3470	Shale, brown, as described above, 70%; siltstone, brown-orange, calcareous, 30%.
3470	3510	Shale, brown, as described above, 50%; siltstone, orange, as described above, 50%.
3510	3540	Shale, orange, red, silty, trace of limestone nodules, 100%.
3540	3550	Shale, red, orange, silty, mottled green in places, 100%.
3550	3590	Shale as above, with trace siltstone, red, 100%.
3590	3630	Shale, red-orange, trace lavender, slightly calcareous.
3630	3660	Shale as described above, with trace of pink limestone nodules.
3660	3700	Shale, red-orange, as described above, with trace of limestone, nodular, lavender.
3700	3790	Shale, varicolored, predominantly red, orange, mottled.
3790	3850	Shale, lavender, red, with some sandstone, very calcareous.
3850	3880	Shale as described above.
3880	3900	Shale as described above, becoming very calcareous.
3900	3940	Shale, red-brown, green, with trace bentonite, white.

3940	3960	Shale, red, orange, brown, very calcareous, with trace brown limestone nodules.
3960	4130	As above, with abundant pink-brown limestone nodules.
4130	4140	Sample as above; high per cent Mancos cavings.
4140	4180	Samples as described above.
4180	4210	Shale, grey, green, bentonitic, with some shale, lavender.
4210	4260	Shale, grey, green, mottled, lavender, some yellow, soft, bentonitic.
4260	4280	Sandstone, light green, very fine-grained, tight, quartzitic, 10%; shale as above, 90%.
4280	4300	Sandstone as above, 20%; shale as above, 80%.
4300	4310	Sandstone, light green, some orange, subrounded to angular grains, 30%; shale as above, 70%.

TOP OF PERMIAN CUTLER - 4315'

4310	4330	Sandstone, orange, medium grained, calcareous, with some coarse pebbles, 30%; shale as above, 70%.
4330	4350	Sandstone as above, 20%; shale as above, 80%.
4350	4360	Shale, red-brown, slightly silty, trace limestone nodules, 50%; shale, grey-green, silty, micaceous, 50%.
4360	4390	Samples as described above, with trace sandstone as above.
4390	4400	Sample as above, with trace orange quartzitic pebbles.
4400	4500	Shale, red, brown, trace purple, 100%.
4500	4590	Shale, orange-red, calcareous, trace pink, red limestone nodules.
4590	4650	Shale, red-brown, orange, with some red limestone nodules.
4650	4730	Shale, red, orange, as described above.
4730	4780	Shale, red, brown, slightly silty, calcareous, 100%.
4780	4860	Samples as above, with trace limestone nodules.
4860	4980	Shale, red-brown, trace limestone.
4980	5110	Shale, red-brown, slightly silty.
5110	5140	Shale as described above, with trace anhydrite.
5140	5200	Shale as described above, with limestone nodules.
5200	5300	Shale, red, silty, calcareous, trace anhydrite.
5300	5320	Shale, red, brown, silty, with some grey-green, silty.
5320	5330	Shale, varicolored, silty, calcareous.
5330	5380	Shale, brick red, silty, calcareous.
5380	5400	Shale, red, silty, trace anhydrite.
5400	5490	Shale, red, brown, silty, calcareous.
5490	5500	Shale, red, brown, as described above, with trace limestone, pink, dense.
5500	5530	As above, with trace white anhydrite.
5530	5600	Shale, red, brown, as above, trace white anhydrite.
5600	5710	Shale as above, with trace limestone, pink, argillaceous; trace sandstone, pink, fine to medium grained, tight.
5710	5730	Shale as described above, 90%; sandstone, grey-purple, very fine-grained, tight, 10%.
5730	5760	Shale, red-brown, with trace sandstone as above.
5760	5820	Shale as above, with some shale, dark brown, waxy.
5820	5830	Shale as above, 90%; limestone, grey-brown, dense, microcrystalline, 10%.

5830	5840	Shale as above, 80%; limestone as above, 20%.
5840	5900	Shale, red, brown, silty, calcareous, 100%.
5900	5920	Shale, red, brown, green, soft, slightly bentonitic, 100%.
5920	5930	Shale, red, green-grey, slightly silty.
5930	5970	Bentonite, white, 20%; shale, red-green, as described above, 30%; shale, black splinters, 50%.
5970	5980	Limestone, brown-grey, dense, minute fract. microcrystalline, with some limestone appearing slightly silty, with trace chert, clear, transparent, 30%; shale, red-brown, 70%.
5980	5990	Shale, red-brown, trace bentonite as described above, trace limestone as described above.

TOP OF HERMOSA - 5995'

5990	6000	Shale as described above, 100%.
6000	6010	Shale as above, with shale, black (cavings), 90%; limestone as described above, 10%.
6010	6030	Shale as above, with trace of lavender shale, 90%; limestone as above, 10%.
6030	6040	Limestone, brown-grey, microcrystalline, dense, minute fract., 30%; shale as described above, 70%.
6040	6050	Limestone as described above, 20%; shale as above, 80%.
6050	6060	Limestone, cream-white, microcrystalline, dense, 40%; shale as described above, 60%.
6060	6070	Limestone as described above, 20%; shale as above, 80%.
6070	6080	Shale as above, 100%; trace limestone as described above.
6080	6090	Limestone as above, 30%; shale as above, 70%.
6090	6100	Very poor sample--limestone as above, 40%; shale as above, 60%.
6100	6110	Limestone, light grey-cream, very dense, lithographic, 40%; shale, red-brown, red, trace green, trace bentonite, 60%.
6110	6120	Limestone as above, 10%; shale as above, 90%.
6120	6130	Shale as described above, 100%.
6130	6140	Shale, red-brown, with trace of green-grey, 90%; limestone, white-cream, dense, as above, with trace of chert, smoky, translucent, 10%.
6140	6150	Limestone, grey-cream, microcrystalline, dense, with some limestone, brown-grey, dense, calcite veining, 20%; shale as above, 80%.
6150	6170	Shale as described above, 90%; limestone as above, 10%.
6170	6180	Shale, red-brown, silty, calcareous, with trace green, micaceous siltstone, 90%; limestone as above, 10%.
6180	6190	Limestone as above, with trace smoky chert, 20%; shale as above, 80%.
6190	6200	Shale as above, with some grey silty micaceous shale, 80%; limestone as described above, 20%.
6200	6230	Shale, varicolored, calcareous, silty, primarily cavings, 100%.
6230	6260	Shale as above, 90%; limestone, grey-cream, microcrystalline, dense, 10%.

6260	6270	Limestone, white, microcrystalline, dense, minute fracture, 20%; shale as above, 80%.
6270	6300	Shale as above, 90%; limestone as above, 10%.
6300	6310	Shale, red-brown, grey-green, slightly silty, calcareous, 100%; trace sandstone, white, very fine-grained, well sorted, tight; trace limestone as described above.
6310	6320	Shale, red-brown, silty, as above, 100%; trace limestone, brown, dense, microcrystalline.
6320	6400	Samples as described above, with some shale, grey, silty.
6400	6410	Shale, red, brown, grey, green, silty, calcareous, 100%.
6410	6420	Shale, red-brown, green as above, trace shale, black, slightly calcareous, 80%; limestone, grey with brown cast, dense, microcrystalline, 20%.
6420	6430	Shale as described above, 80%; limestone as above, 20%.
6430	6450	Limestone as described above, 30%; shale as described above, 70%; trace chert, clear.
6450	6470	Limestone, grey, cream, microcrystalline, dense, minute calcite filled fracture, 30%; shale as above, 70%.
6470	6480	Shale as above, 80%; limestone as above, 20%.
6480	6490	Shale as above, 90%; limestone as above, 10%.
6490	6500	Limestone, grey-brown, dense, microcrystalline, slightly fossiliferous, 10%; shale as above, 90%.
6500	6510	Limestone, grey with brown cast, with some cream, microcrystalline, dense, some calcite filled fracture, trace chert, clear, 30%; shale as above, 70%.
6510	6520	Poor sample; limestone as above, 40%; shale as above, 60%.
6520	6530	Limestone as described above, with trace chert, smoky, 30%; shale as above, 70%.
6530	6560	Limestone as above, with abundant chert, 20%; shale as above, 80%.
6560	6570	Shale, red, brown, green, some mottled, silty, trace dark grey-black pyritic shale, 70%; limestone, grey with brown cast, calcite veining, microcrystalline, dense, 30%.
6570	6580	Limestone as described above, with trace of chert, 60%; shale as above, 40%.
6580	6590	Limestone as above, 70%; shale as above, 30%.
6590	6610	Shale as above, 80%; limestone as above, with some limestone medium grey, fine, crystalline, dense, 20%.
6610	6640	Limestone as described above, 30%; shale as above, 70%.
6640	6650	Sample missing.
6650	6670	Shale as described above, 80%; limestone as above, 20%.
6670	6700	Shale as described above, 90%; limestone as above, 10%.
6700	6710	Limestone, grey with brown cast, dense, microcrystalline, 30%; shale as above, 70%.
6710	6720	Limestone as above, with some cream, microcrystalline, dense, 40%; shale as above, with abundant shale, black, slightly calcareous, 60%.
6720	6760	Limestone as above, 30%; shale as above, 70%.
6760	6770	Shale, red, brown, varicolored, trace grey, 90%; limestone as above, 10%.
6770	6780	Limestone, grey-cream, microcrystalline, dense, with some minute calcite fracture, 20%; shale as above, 80%.

6780	6790	Limestone as described above, 30%; shale as above, 70%.
6790	6800	Limestone as above, 40%; shale as above, 60%.
6800	6810	Limestone as above, 50%; shale as above, 50%.
6810	6820	Limestone, medium grey to cream, dense, microcrystalline, to very fine crystalline, 60%; shale as above, 40%.
6820	6840	Limestone, medium grey, dense, some argillaceous, 50%; shale, grey-green, red, as above, 50%.
6840	6850	Limestone as described above, 20%; shale as above, 80%.
6850	6870	Limestone as above, 40%; shale as above, 60%.
6870	6900	Shale, red-brown, trace purple, grey, silty, calcareous, 90%; limestone as above, with chert, clear, 10%.
6900	6910	Shale, red-brown, orange, silty, calcareous, with shale, grey, dark grey mottled, slightly calcareous, with shale, grey, 90%; limestone, grey-medium grey-cream, microcrystalline, lithographic, some chalky, dense, trace chert, smoky, translucent, 10%.

START 5' SAMPLES

6910	6915	Shale as described above, with some dark grey, silty shale, 80%; limestone as above, 20%.
6915	6925	Samples as described above.
6925	6930	Shale as above (high per cent black carboniferous shale, 90%; limestone as above, 10%.
6930	6940	Shale as described above, 80%; limestone as described above, 20%; trace anhydrite, white, grey (cavings).

CIRCULATED 1-1/2 hours before tripping at 6941'

6940	6950	Sample as described above.
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TOP OF PARADOX - 6950'

6950	6960	Shale, black, carboniferous, calcareous, with shale, red-orange, green, grey-green, as above, 70%; limestone, grey-grey-brown, tan, microcrystalline, dense, trace fossiliferous, with some limestone, chalky, 30%.
6960	6965	Shale as above, 80%; limestone as above, 20%.
6965	6970	Shale as above, 90%; limestone as above, 10%.
6970	6975	Shale as above, 70%; limestone as above, with some limestone, black, carboniferous, dense, calcite veining, 30%.
6975	6980	Shale as above, 80%; limestone as above, 20%.
6980	6990	Shale as above, 70%; limestone as above, 30%.
6990	7010	Shale as above, 60%; limestone as above, 40%.
7010	7020	Mud started clabbering, drilling anhydrite.
7020	7050	Anhydrite.

CORE #2 - 7050 to 7100 - Cut 50' recovered 50'

7050	7055	Anhydrite, grey, crystalline, massive.
7055	7073	Argillite, black, carboniferous, calcareous.
7073	7095	Anhydrite, grey, crystalline, massive.
7095	7100	Argillite as described above.

7100	7110	Shale, black-grey, carboniferous, calcareous, 70%; limestone, brown-grey, microcrystalline, dense, calcitic, with some appearing slightly silty, 30%.
7110	7120	Shale as described above, 60%; limestone as described above, with some limestone becoming carboniferous, 40%.
7120	7126	Drilling break @ 7121'. Drilled to 7126 and circulated 90 minutes. Circulated sample description as follows: Dolomite, tan, very argillaceous, with minute black shale partings, trace carboniferous inclusions, dense, no visible porosity.
7126	7130	Sample as described above.
7130	7140	Dolomite as described above, 70%; shale as above, 30%.
7140	7150	Dolomite as above, 80%; shale as above, 20%.
7150	7160	Dolomite as above, 80%; shale as above, 20%.
7160	7165	Drilling break at 7161'. Drilled to 7165 and circulated 90 minutes. Circulated sample as described below: Dolomite as described above, becoming more limey.
7165	7180	Shale as described above, 50%; dolomite as above, 50%.
7180	7190	Limestone, grey-brown, slightly carboniferous, dense, lithographic, with some limestone, light grey, silty, dense, 60%; dolomite as described above, 10%; shale as described above, 30%.
7190	7200	Limestone, light grey, microcrystalline, dense, with some limestone as described above, 40%; shale as above, 60%.
7200	7210	Limestone as described above, 10%; shale as above, 90% (appears to be some anhydrite washout).
7210	7230	Limestone, brown, slightly sucrosic, dense, 30%; shale as above, 70%; trace shale and limestone as above, with anhydrite inclusions.
7230	7250	Shale, grey, calcareous, approaching mudstone, with shale as described above, 70%; limestone as above, 30%.
7250	7260	Anhydrite, white, microcrystalline, with some black carboniferous inclusions, 10%; limestone, grey-tan, dense, microcrystalline, 20%; shale as above, 70%.
7260	7280	Limestone, dark grey, crystalline, dense, carboniferous, anhydritic, 40%; shale as above, 60%; (white coating on samples anhydrite washout).
7280	7300	Limestone as described above, 70%; shale as above, 30%.
7300	7330	Anhydrite, white, soft (coating samples), 20%; limestone as described above, 10%; shale as above, 70%.
7330	7340	Limestone as described above, 30%; shale as above, 70%.
7340	7350	Sample as described above (very poor sample).
7350	7360	Limestone as above, 30%; shale as above, 70%.
7360	7370	Shale as described above, 80%; limestone as above, 20%.
7370	7380	Sample as above (anhydrite coating on sample).
7380	7390	Limestone as above, 30%; shale as above, 70%.
7390	7400	Limestone, tan, brown, dense, microcrystalline, 40%; shale as above, 60%.
7400	7410	Limestone as above, 40%; shale as above, 60%; trace anhydrite.
7410	7430	Limestone, brown-dark grey, dense, microcrystalline, carboniferous, 30%; shale as above, 70%.

7430	7440	Limestone as described above, 40%; shale as above, 60%.
7440	7450	Dolomite, brown, dense, slightly sucrosic, with some calcite inclusions, 50%; limestone as above, 10%; shale as above, 40%.
7450	7500	Dolomite as above, 60%; limestone as above, 10%; shale as above, 30%.
7510	7550	Dolomite as described above, with trace dolomite with intergranular porosity, 80%; shale as above, 20%.

DST #1 - 7485 - 7458

Gas to surface in 13 minutes, too small to measure.

Recovered 120' sour gas cut mud.

IHP	3850
ISP	3560/30"
IFP	45
FFP	60/2'
FSI	3560/1'
PHP	3850

7550	7560	Dolomite, tan, brown, sucrosic, fine-microcrystalline.
7560	7570	Dolomite as above.
7570	7600	Samples primarily cavings, dolomite as above.
7600	7650	Limestone, grey, dense, microcrystalline, 20%; dolomite as described above, 10%; shale as above, 70%.

DST #2 - 7560 - 7646

Gas to surface in 5", sour gas, estimated gauge 500 mcf; gas cut salt water flowed by heads in 1'20".

Recovered 6476' salt water.

IHP	3850
ISI	3650/30"
IFP	430
FFP	2505/2'
FSIP	3540/1'
IHP	3850

7650	7660	Dolomite, brown, dense, slightly sucrosic, 40%; shale, black, carboniferous, with red, green, mottled, 60%.
7660	7680	Dolomite as above, 50%; shale as above, 50%.
7680	7700	Limestone, tan, microcrystalline, slightly fossiliferous, dense, 30%; dolomite as described above, 10%; shale as above, 60%.
7700	7710	Limestone as above, with some limestone, cream, microcrystalline, dense, 40%; shale as above, 60%.
7710	7720	Sample as described above.
7720	7740	Limestone, tan-cream, dense, with some slightly dolomitic, slightly fossiliferous, 40%; shale as above, 60%.
7740	7760	Limestone, dark brown, siliceous, dense, with limestone as described above, 60%; shale as above, 40%.
7760	7780	Limestone, cream, some with pink cast, dense, chalky, with limestone, dark brown as above, 70%; shale as above, 30%.

7780	7820	Limestone primarily dark brown as above, 80%; shale as above, 20%.
7820	7840	Limestone, tan-grey, with some mottled, dense, slightly siliceous, 90%; trace chert, smoky; shale, black, carboniferous, calcareous, 10%.
7840	7860	Limestone as described above, with some fossiliferous.
7860	7880	Shale as described above, with some shale mottled, green, purple, 40%; limestone as above, 60%.
7880	7900	Limestone as above, 80%; shale as above, 20%.
7900	7920	Very poor samples; same as described above.
7920	7930	Limestone, grey-tan-cream, with some pink cast, dense, microcrystalline, 90%; shale, black, carboniferous, with some green, 10%.
7930	7940	Limestone as above, with high per cent pink, chalky limestone, dense, 90%; shale as above, with some yellow and purple, 10%.
7950	7970	Limestone as above, 80%; shale as above, 20%.
7970	7980	Limestone as above, 70%; shale as above, becoming more varicolored, 30%.

TOP OF PENNSYLVANIAN MOLAS - 7980'

7985		Circulated 1'45", samples as described below: Shale, predominately light green, purple, 70%; limestone as described above, 30%.
7980	7990	Sample as described above.
7990	8000	Shale, purple, blue-grey, light green, splintery, slightly micaceous, 80%; limestone as described above, 20%.

TOTAL DEPTH - 8000' in Pennsylvanian Molas.